

**Commonwealth of Kentucky**  
**Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Herbert Campbell

General Information

Name:	Jim Beam Brands Co.
Address:	1600 Lebanon Junction Road, Boston, Kentucky 40107
Date application received:	October 26, 2006
SIC/Source description:	2085/Distillery
AFS(10-digit) Plant ID:	21-179-00014
A.I. #:	3261
Activity number:	APE20070001
Permit number:	V-03-009 R5

Application Type/Permit Activity

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
<input checked="" type="checkbox"/> Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

Compliance Summary

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

Applicable Requirements list

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input checked="" type="checkbox"/> Other "Cap-out" of MACT 40 CFR 63.7545(b)
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

Miscellaneous

☐ Acid rain source

☐ Source subject to 112(r)

☒ Source applied for federally enforceable emissions cap

☐ Source provided terms for alternative operating scenarios

☐ Source subject to a MACT standard

☐ Source requested case-by-case 112(g) or (j) determination

☒ Application proposes new control technology

☒ Certified by responsible official

☒ Diagrams or drawings included

☐ Confidential business information (CBI) submitted in application

☐ Pollution Prevention Measures

☐ Area is non-attainment (list pollutants)

### Emissions Summary

Pollutant	Actual (tpy)	Potential (tpy)
PM	505.60	1,819.57
SO <sub>2</sub>	197.07	1,244.31
NO <sub>x</sub>	82.29	269.61
CO	66.97	128.99
VOC	1,903.9	2,209.32
HCl	**	*9
LEAD	0.020	0.043

\*The source has chose to "cap-out" at this limit in order to preclude MACT.

\*\* The source will use current "cap-out" potential as actual till next survey.

### **SOURCE DESCRIPTION:**

The source is a distillery that makes distilled spirits. Grain is unloaded and conveyed to mills where it is ground. The grain is fed into mash cookers along with water, and the grain starches are converted to sugars by heating. The cooked grain/water mixture is fed into fermenter vessels as a batch operation to convert the sugars to ethanol. After an appropriate residence time, the mixture is processed through distillation columns and condensers. The condensed liquid is fed to spirits tanks and then gauged at the cistern tanks prior to barrel filling. The spent stillage is then dried with a dryer and put into a storage room. Whiskey from the cistern tanks is put into barrels until the appropriate age is reached. The barrels are then gravity dumped, rolled, and rinsed at the dumping station. After dumping, the whiskey is fed to the regauge tanks, where it may be processed and sent to be loaded for shipment.

### **CURRENT PERMITTING ACTION: --V-03-009 R5**

- A new centrifuge for the evaporator process expansion
- A new tank for the barrel filling, aging and dumping
- A second beer still will be installed as part of the distillation process and the existing doubler will be replaced with a larger doubler
- A new lime silo will be added as part of the lime handling system that was installed as part of the May 23, 2005 minor Title V permit revision.

### **PREVIOUS PERMITTING ACTION: V-03-009 R4**

Jim Beam Brands Co. (JBB) has applied to the Kentucky Division for Air Quality for a significant revision of the Title V permit No. V-03-009 R3 for its Booker Noe Distillery located in Boston in Nelson County, Kentucky. The facility is proposing an overall source-wide limitation on Hazardous Air Pollutant (HAP) emissions to preclude the Maximum Achievability Control Technology (MACT) applicability of 40 CFR 63.7545(b), National Emission Standards for Hazardous Air

Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters. In order to "cap-out" of MACT the facility shall limit source-wide HAPs emissions to less than 9 tons per year for any individual HAP pollutant and 22.5 tons per year for any combination of HAP pollutants. To achieve these limitations of this revision they propose to achieve the following objectives:

- 1) Cap HCL emissions from the coal-fired boiler to less than 9.0 tons per year (tpy). HCL generated by the coal-fired boiler is the primary source of Hazardous Air Pollutant (HAP) emission from the facility. As such, the emission limitation on the boiler will keep overall facility-wide emissions below applicable major source thresholds (25 tpy aggregate HAP and 10 tpy individual HAP). Moreover, this emissions limitation will also allow the facility to "cap-out" of the National Emission Standards MACT for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters (40 CFR 63.754(b)).
- 2) Modify the emissions monitoring language for opacity from the baghouse exhaust. As an alternative to the current monitoring requirements, the facility proposes to perform a qualitative visual observation of the opacity of emissions from the coal boiler/baghouse stack on a daily basis and maintain a log of such observations. If visible emissions are seen, the permittee shall then assess the opacity of emissions by conducting a formal Reference Method 9 evaluation and initiate an inspection of the control equipment for potential repairs. It is noted that the current monitoring requirement is more stringent than that which was required prior to installation of the baghouse.
- 3) Modify the specific control equipment monitoring and maintenance requirement on the baghouse. JBB proposes to replace existing permit language with: "The baghouse shall be operated in such a manner as to maintain compliance with permitted emission limitations in accordance with manufacturer's specifications and /or standard operating practices."

#### **EMISSION AND OPERATING CAPS DESCRIPTION:**

The permittee (Jim Beam-Booker Noe Distillery), in order to preclude applicability of the Maximum Achievable Control Technology (MACT) for National Emission Standards Hazardous Air Pollutants (NESHAPS) for Industrial Commercial and Institutional Boilers and Process Heaters of 40 CFR 63.7545 (b), shall limit source wide HAPs emissions to less than 9 tons/year (tpy) for any individual HAP pollutant and 22.5 tons/year (tpy) for any combination of HAP pollutants. For Emissions Unit 09 (09-001) Indirect Heat Exchanger HCl emissions shall not exceed 9 tons/year.